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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/673,260

09/30/2003

Koichiro Mitsui

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22429

7590

09/05/2008

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EXAMINER

HAND, MELANIE JO

ART UNIT

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/673,260	<b>Applicant(s)</b> MITSUI ET AL.	
	<b>Examiner</b> MELANIE J. HAND	<b>Art Unit</b> 3761	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 May 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,4,5,8-11,21 and 23-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4,5,8-11,21 and 23-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 20, 2008 has been entered.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1, 4, 5, 8-11 and 21 have been considered but are moot in view of the new ground(s) of rejection prompted by applicant's amendment to the claims.

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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4. Claims 1, 4, 5, 8-11, 21 and 23-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fries et al (CA 2143791 A) in view of Jingu et al (JP 2002-000648) (English translation).

With respect to **claim 1**: Fries discloses a disposable diaper 10 comprising a diaper main body including a top sheet 28, a back sheet 30 and an absorbent body 32 disposed between said top sheet 28 and back sheet 30. (Page 4, lines 9-19) The diaper comprises a pair of side flaps 56,58 respectively extending outwardly from respective side edge portions in a lateral direction of said diaper main body. The side flaps are connected by bridge member 40 which is disposed between the top sheet and back sheet and thus the panels 56,58 are also disposed between said top sheet and back sheet. (Page 4, lines 19-27) Each of said side flaps 56,58 comprises an elastic sheet sandwiched between upper and lower non-woven fabric layers. (Page 32, lines 1-7) A pair of fixing tapes in the form of fastener tabs 36 each having a hook member are attached to one of said side flaps 56,58 (Fig. 1) in a vicinity of an outermost lateral edge of said side flap. (Page 32, lines 18-21) The fixing tape 36 disclosed by Fries comprises (i) a fixing tape substrate defining the body of fastener 36, (ii) said hook member provided on a surface of said fixing tape substrate (Fig. 1), and (iii) a gripping portion at one of opposite ends of the fixing tape substrate and adjacent to the hook member (Fig. 1) in the form of a small tape that tapers at the distal end of the fastener with respect to the diaper body.

Fries does not disclose an engaging region on a surface of each side flap where the respective fixing tape is releasably engageable with said side flap through the hook member. Jingu teaches an absorbent article having side flaps and fixing tapes having hook members wherein an engaging region is present on a surface of each side flap where the respective fixing tape is releasably engagable with said side flap through the hook member. The engaging region

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is defined by a non-woven fabric that has no adhesive on said surface. The engaging region disclosed by Jingu comprises (a) an engaging portion in the form of loop fabric that is directly, mechanically and non-adhesively engagable with said hook member, and (b) a non-engaging portion defined by the surface of the side flap with which said hook member cannot be engaged at all. The non-engaging portion comprises a nonwoven fabric which is non-complimentary to the mechanically fastening hook member (i.e. it is not a loop and does not have loops thereon) and therefore necessarily has a lower engaging force with said hook member than the engaging portion. The non-engaging portion has an area that faces the hook member that is larger than the area of the engaging portion that faces the hook member. (Abstract, Figs. 3, 6 or 7) As can be seen in Fig. 3, and relying upon Fig. 3 solely for its depiction of relative dimensions of the engaging regions 23 and the rest of wings 12 (i.e. the non-engaging portion shown as the more densely dotted area).

Jingu does not explicitly disclose that an entire area of said engaging portion 23 is within in a range of 5% to 50% of the entire area of said hook member. However, it would be obvious to one of ordinary skill in the art to further modify the article of Fries as modified by Jingu such that the entire area of said engaging portion is in the range of 5-50% of the entire area of said hook member with a reasonable expectation of success to ensure that the hook member sufficiently engages the engaging region. There is a design need or a market pressure to solve a problem (in this case provide a secure tape fastener that can engage the same respective part of a diaper it extends from), and there are a finite number of identified, predictable solutions (in this case the relative proportions of the hook area and engaging portion disclosed by Jingu), a person of ordinary skill in art has good reason to pursue known options within his or her technical grasp, and if this leads to anticipated success, it is likely product of ordinary skill and common sense, not innovation. The fixing tape substrate disclosed by Fries comprises a

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nonwoven fabric, inasmuch as it is a tape fastener, having a lower engaging force with said hook member than the engaging portion disclosed by Jingu inasmuch as the engaging portion comprises loop fabric which is the complimentary fastener material to hook material and thus engages fully, as opposed to the fixing tape substrate which has no means for engaging the hook member at all. The engaging region disclosed by Jingu defines a temporary fixing portion at which said fixing tape is temporarily fixed to said surface of the side flap via said engaging portions in a manner that most of the direct engagement between the engaging portion and the hook member is achieved by a portion of the hook member that is immediately adjacent the gripping portion inasmuch as most of the area of the hook portion is adjacent the gripping portion.

With respect to **claim 4**: Neither Fries nor Jingu discloses an engaging force of said engaging region with said hook member. However, since the article of Fries as modified by Jingu has a hook member and an engaging portion that is the same material as that disclosed by applicant (i.e. loop material), it would be obvious to modify the article of Fries as modified by Jingu such that the engaging force of the engaging region is in a range of 0.3 N/25mm to 2.2 N/25mm with a reasonable expectation of success to ensure secure attachment of the diaper around the wearer.

With respect to **claim 5**: The article fairly suggested by Fries and Jingu will necessarily have a non engaging portion having an engaging force with said hook member that is not greater than 2.2 N/25mm, as the engaging force of the non-engaging portion will be less than that of the engaging portion, wherein the minimum engaging force for the engaging portion is 2.2 N/25mm.

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The motivation to modify the article of Fries so as to have an engaging portion and non-engaging portion is stated *supra* with respect to claim 1.

With respect to **claim 8**: The hook member of said fixing tape disclosed by Fries is a male engaging piece of a hook-and-loop fastener. (Page 32, lines 13-15)

With respect to **claim 9**: The fixing tape 36 disclosed by Fries is directly attached to the surface of said side flap 56 or 58. Fries does not disclose that the fixing tape is folded along the outermost lateral edge of the respective side flap 56,58, though it is fully capable of being folded in this manner so that said hook member faces the inner surface of the side flap. One of ordinary skill in the art would be motivated to fold the fixing tape in this manner to keep it out of the way prior to use so that it does not prematurely engage an area of the diaper other than that intended, potentially causing tearing of the fixing tape in order to disengage it for proper use.

Fries does not disclose a surface of the flap having an engaging portion. Jingu discloses such an engaging portion. It would be obvious to one of ordinary skill in the art to fold the fixing tape of Fries such that it engages said surface of the article of Fries as modified by Jingu to temporarily protect the hook fastener from contamination which would reduce its engaging force with the engaging portion. Thus the fixing tape would be folded such that the hook member faces said surface of said side flap and is temporarily fixed to said surface of said side flap at the engaging portion, i.e. in the recited manner.

With respect to **claim 10**: Fries discloses that said fixing tape 36 is directly attached to said side flap 56 or 58 (Page 32, lines 18-21), so that said hook member opposes the surface of said side flap 56,58 and is temporarily fixed to said surface of said side flap at the engaging portion in the

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article of Fries as modified by Jingu, i.e. in the recited manner. The motivation to modify the article of Fries so as to have an engaging region on the side flaps comprising an engaging portion as disclosed by Jingu is stated *supra* with respect to claim 1.

With respect to **claim 11**: The fixing tape of the article of Fries as modified by Jingu is directly attached to one of opposite surfaces of said side flap. Fries does not disclose that the fixing tape is folded though it is fully capable of being folded along the outermost lateral edge of said side flap, so that said hook member faces the other one of said opposite surfaces of the side flaps and is temporarily fixed to said other .surface of said side flap at the engaging portions, i.e. in the recited manner. One of ordinary skill in the art would be motivated to fold the fixing tape in this manner to keep it out of the way prior to use so that it does not prematurely engage an area of the diaper other than that intended, potentially causing tearing of the fixing tape in order to disengage it for proper use.

With respect to **claim 21**: Fries discloses a disposable diaper 10 comprising a diaper main body including a top sheet 28, a back sheet 30 and art absorbent body 32 disposed between said top sheet 28 and back sheet 30. (Page 4, lines 9-19) The diaper comprises a pair of side flaps 56,58 respectively extending outwardly from respective side edge portions in a lateral direction of said diaper main body, the side flaps are connected by bridge member 40 which is disposed between the top sheet and backsheet and thus the panels 56,58 are also disposed between said top sheet and back sheet. (Page 4, lines 19-27) Each of said side flaps 56,58 comprises an elastic sheet sandwiched between upper and lower non-woven fabric layers. (Page 32, lines 1-7) A pair of fixing tapes in the form of fastener tabs 36 each having a hook member are attached to one of said side flaps 56,58 (Fig. 1) in a vicinity of an outermost lateral edge of said side flap.

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(Page 32, lines 18-21) The fixing tape 36 disclosed by Fries comprises (i) a fixing tape substrate defining the body of fastener 36, (ii) said hook member provided on a surface of said fixing tape substrate (Fig. 1), and (iii) a gripping portion at one of opposite ends of the fixing tape substrate and adjacent to the hook member (Fig. 1) in the form of a small tape that tapers at the distal end of the fastener with respect to the diaper body.

Fries does not disclose an engaging region on a surface of each side flap where the respective fixing tape is releasably engageable with said side flap through the hook member. Jingu teaches an absorbent article having side flaps and fixing tapes having hook members wherein an engaging region is present on a surface of each side flap where the respective fixing tape is releasably engageable with said side flap through the hook member. The engaging region is defined by a non-woven fabric that has no adhesive on said surface. The engaging region comprises (a) an engaging portion in the form of loop fabric that is directly, mechanically and non-adhesively engageable with said hook member, and (b) a non-engaging portion defined by the surface of the side flap with which said hook member cannot be engaged at all and which comprises a nonwoven fabric necessarily thus having a lower engaging force with said hook member than the engaging portion and the non-engaging portion has an area that faces the hook member that is larger than the area of the engaging portion that faces the hook member. (Abstract, Figs. 3, 6 or 7)

As can be seen in Fig. 3, and relying upon Fig. 3 of Jingu solely for its depiction of relative dimensions of the engaging regions 23 and the rest of wings 12 (i.e. the non-engaging portion shown as the more densely dotted area), an entire area of said engaging portion 23 is not within in a range of 5% to 50% of the entire area of said hook member. However, it would be obvious to one of ordinary skill in the art to further modify the article of Fries as modified by Jingu such that the entire area of said engaging portion is in the range of 5-50% of the entire

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area of said hook member with a reasonable expectation of success to ensure that the hook member sufficiently engages the engaging region. There is a design need or a market pressure to solve a problem (in this case provide a secure tape fastener that can engage the same respective part of a diaper it extends from), and there are a finite number of identified, predictable solutions (in this case the relative proportions of the hook area and engaging portion disclosed by Jingu), a person of ordinary skill in art has good reason to pursue known options within his or her technical grasp, and if this leads to anticipated success, it is likely product of ordinary skill and common sense, not innovation. The fixing tape substrate disclosed by Fries comprises a nonwoven fabric, inasmuch as it is a tape fastener, having a lower engaging force with said hook member than the engaging portion disclosed by Jingu inasmuch as the engaging portion comprises loop fabric which is the complimentary fastener material to hook material and thus engages fully, as opposed to the fixing tape substrate which has no means for engaging the hook member at all. The engaging region disclosed by Jingu defines a temporary fixing portion at which said fixing tape is temporarily fixed to said surface of the side flap via said engaging portions in a manner that most of the direct engagement between the engaging portion and the hook member is achieved by a portion of the hook member that is immediately adjacent the gripping portion inasmuch as most of the area of the hook portion is adjacent the gripping portion.

With respect to **claim 23**: Neither Fries nor Jingu discloses an engaging force of said engaging region with said hook member. However, since the article of Fries as modified by Jingu has a hook member and an engaging portion that is the same material as that disclosed by applicant (i.e. loop material), it would be obvious to modify the article of Fries as modified by Jingu such that the engaging force of the engaging region is in a range of 0.3 N/25mm to 2.2 N/25mm with

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a reasonable expectation of success to ensure secure attachment of the diaper around the wearer.

With respect to **claim 24**: The article fairly suggested by Fries and Jingu will necessarily have a non engaging portion having an engaging force with said hook member that is not greater than 2.2 N/25mm, as the engaging force of the non-engaging portion will be less than that of the engaging portion, wherein the minimum engaging force for the engaging portion is 2.2 N/25mm.

With respect to **claim 25**: The hook member of said fixing tape disclosed by Fries is a male engaging piece of a hook-and-loop fastener. (Page 32, lines 13-15)

With respect to **claim 26**: The fixing tape 36 disclosed by Fries is directly attached to the surface of said side flap 56 or 58. Fries does not disclose that the fixing tape is folded, though it is fully capable of being folded along the outermost lateral edge of said side flap 56,58 so that said hook member faces the inner surface of the side flap. One of ordinary skill in the art would be motivated to fold the fixing tape in this manner to keep it out of the way prior to use so that it does not prematurely engage an area of the diaper other than that intended, potentially causing tearing of the fixing tape in order to disengage it for proper use.

Fries does not disclose a surface of the flap having an engaging portion. Jingu discloses such an engaging portion. It would be obvious to one of ordinary skill in the art to fold the fixing tape of Fries such that it engages said surface of the article of Fries as modified by Jingu to temporarily protect the hook fastener from contamination which would reduce its engaging force with the engaging portion. Thus the fixing tape would be folded such that the hook member

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faces said surface of said side flap and is temporarily fixed to said surface of said side flap at the engaging portion, i.e. in the recited manner.

With respect to **claim 27**: Fries discloses that said fixing tape 36 is directly attached to said side flap 56 or 58 (Page 32, lines 18-21), so that said hook member opposes the surface of said side flap 56,58 and is temporarily fixed to said surface of said side flap at the engaging portion in the article of Fries as modified by Jingu, i.e. in the recited manner. The motivation to modify the article of Fries so as to have an engaging region on the side flaps comprising an engaging portion is stated *supra* with respect to claim 21.

With respect to **claim 28**: The fixing tape of the article of Fries as modified by Jingu is directly attached to one of opposite surfaces of said side flap. Fries does not disclose that the fixing tape is folded though it is fully capable of being folded along the outermost lateral edge of said side flap, so that said hook member faces the other one of said opposite surfaces of the side flaps and is temporarily fixed to said other surface of said side flap at the engaging portions, i.e. in the recited manner.

With respect to **claims 29,30**: The non-engaging portion of said engaging region of the article of Fries as modified by Jingu is formed on said inner surface of said side flap. The motivation to modify the article of Fries so as to have an engaging region as claimed and disclosed by Jingu is stated *supra* with respect to claim 21.

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5. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fries et al (CA 2143791 A) in view of Jingu et al (JP 2002-000648) (English translation) as applied to claim 21 above, and further in view of Tanzer et al (U.S. Patent No. 6,730,069).

With respect to **claim 31**: The fixing tape 36 disclosed by Fries is directly attached to the surface of said side flap 56 or 58. Fries does not disclose that the fixing tape is folded, though it is fully capable of being folded along the outermost lateral edge of said side flap 56,58 so that said hook member faces the inner surface of the side flap. Fries does not disclose a surface of the flap having an engaging portion. Jingu discloses such an engaging portion. It would be obvious to one of ordinary skill in the art to fold the fixing tape of Fries such that it engages said surface of the article of Fries as modified by Jingu to temporarily protect the hook fastener from contamination which would reduce its engaging force with the engaging portion. Thus the fixing tape would be folded such that the hook member faces said surface of said side flap and is temporarily fixed to said surface of said side flap at the engaging portion, i.e. in the recited manner. Tanzer teaches a fastener comprising a first flexible layer 72 comprised of a stretchable laminate of nonwoven material and a second flexible layer 78 attached to the first flexible layer. The first flexible layer contains islands of fastener material and the second flexible layer contains openings 80 corresponding to the location and size of each island located in an area of said fastener that is considered herein to be an attaching region. Tanzer teaches that the openings allow for exposure of the fastener island 64, therefore it would be obvious to one of ordinary skill in the art to modify the tab fastener of the combined teaching of Fries and Jingu so as to contain openings in an attaching region as taught by Tanzer. ('069, Col. 9, line 67, Col. 10, lines 1,2, Col. 12, lines 57-65). The combined teaching of Fries and Jingu and Tanzer thus teaches a portion of said surface of said side flap being exposed through said opening and engageable with said hook member when said fixing tape is folded back.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MELANIE J. HAND whose telephone number is (571)272-6464. The examiner can normally be reached on Mon-Thurs 8:00-5:30, alternate Fridays 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tatyana Zalukaeva can be reached on 571-272-1115. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Melanie J Hand/  
Examiner, Art Unit 3761